

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method of correcting the radial runout variation across the peripheral surface of the tread elements of a tire; comprising the steps of:

locating the tire's center axis;

rotating the tire about its axis and determining a ~~locating and measuring the radial high point and radial low point~~ on the tread elements peripheral surface in each of several circumferential planes between the tread shoulders;

determining a virtual tread profile from the radial low points, and

~~inputting the measurements into a computer and comparing the measurements to sorted profile algorithms, selecting the optimum profile algorithms for establishing a virtual tread profile template, and~~

engaging a tread removal means to remove tread rubber to match the tread profile to the virtual tread profile ~~template~~.

2. (original) The method of claim 1 wherein the measurements are taken in at least three circumferential planes.

3. (currently amended) The method of claim 1 ~~[[2]]~~ wherein the measurements are taken in at least five circumferential planes.

4. (currently amended) The method of claim 1 ~~[[2]]~~ wherein the virtual tread profile is asymmetrical. ~~tire being measured and corrected is an off the road tire.~~

5. (currently amended) The method of claim 1 further includes controlling the movement of the tread removal means by directing the movements to follow the virtual tread profile ~~template~~.

6. (original) The method of Claim 1 further includes controlling the rotational movement of the tire as the tread removal means traverses across the tread.

7. (original) An apparatus for measuring a tire tread profile and truing said tire comprises

a base having linear bearing guide rails for directing movement in an X direction parallel to the axis of the tire to be measured and trued;

a profile measuring device mounted on a movable sled, the sled having linear bearings attached to the guide rail bearings;

a truing device assembly mounted on a movable carriage, the carriage having linear bearings attached to the guide rail bearings; and

a tire rotation device.

8. (original) The apparatus of claim 7 further comprises:

an electronic control system including a computer and software for compiling measurement data and establishing a virtual template to true the tire; the control system directs the movement of the truing device assembly.

9. (original) The apparatus wherein the truing device assembly includes a truing cutter, truer device assembly having a Y direction movable carriage mounted to the X direction movable sled.

10. (original) The apparatus of claim 9 wherein the truer cutter includes a Z axis pivot system.

This listing of claims will replace all prior versions and listings of claims in the application.